

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Cancel):

Claim 2 (Currently Amended ): ~~The~~ A method for changing wireless channels as ~~claimed in claim 1~~ used in a communication between a base station and a mobile station, comprising the steps of:

a) measuring an amount of information transferred between the base station and the mobile station;

b) comparing the measured amount of information with first and second threshold values corresponding to a transmission capability for a current wireless channel being used between the base station and the mobile station; and

c) changing the current wireless channel to the wireless channel with a higher transmission capability than that of the current wireless channel when the measured amount of information is above the first threshold value and changing the current wireless channel to the wireless channel with a lower transmission capability than that of the current wireless channel when the measured amount of information is below the second threshold value, wherein an amount of information yet to be transmitted is measured as said amount of information to be compared with the first threshold value, and

wherein an amount of information currently being transmitted is measured as said amount of information to be compared with the second threshold value.

Claim 3 (Currently Amended): The method for changing wireless channels as claimed in claim ~~[[1]]~~ 2, wherein said step a) consists of measuring the amount of information yet to be transmitted.

Claim 4 ( Currently Amended ): The method for changing wireless channels as claimed in claim [[1]] 2, wherein said step a) consists of measuring the amount of information that has been transmitted during a predetermined time period.

Claim 5 (Currently Amended ): The method for changing wireless channels as claimed in claim [[1]] 2, wherein

the current wireless channel is changed to the wireless channel with the higher transmission capability than the current wireless channel only if the measured amount of information has been successively above the first threshold value over a predetermined count of times.

Claim 6 (Currently Amended ): The method for changing wireless channels as claimed in claim [[1]] 2, wherein

the current wireless channel is changed to the wireless channel with the lower transmission capability than the current wireless channel only if the measured information amount has been below the second threshold value successively over a predetermined count of times.

Claim 7 (Currently Amended): The method for changing wireless channels as claimed in claim [[1]] 2, wherein

the current wireless channel is changed to the wireless channel with the higher transmission capability than the current wireless channel only if the measured amount of information has been successively above the first threshold value over a predetermined count of times, and

the current wireless channel is changed to the wireless channel with the lower transmission capability than the current wireless channel only if the measured information amount has been successively below the second threshold value over a further predetermined count of times.

Claim 8 (Currently Amended): The method for changing wireless channels as claimed in claim [[1]] 2, wherein said step c), before changing the wireless channel, includes the steps of:

determining whether the wireless channel intended to be changed over can be assigned to the communication;

when it is determined that this is not the case, determining again whether the intended wireless channel can be assigned to the communication, after a predetermined time period; and

when it is determined this is the case, changing the current wireless channel to the intended wireless channel.

Claim 9 (Currently Amended ): The method for changing wireless channels as claimed in claim [[1]] 2, wherein said step c), before changing the wireless channel, includes the steps of:

determining whether the wireless channel intended to be changed over can be assigned to the communication;

when it is determined that this is not the case, entering an assignment request indicating changeover to the intended wireless channel into the base station and again determining whether the intended wireless channel can be assigned to the communication in order of the entered assignment request; and

when it is determined that this is the case, changing the current wireless channel to the intended wireless channel.

Claim 10 (Currently Amended ): The method for changing wireless channels as claimed in claim [[1]] 2, wherein said step c) includes the steps of:

when at least one of an upper limit and a lower limit for a required transmission capability is set, determining whether the transmission capability of the intended wireless channel is either above the upper limit or below the lower limit; and

when it is determined that the transmission capability of the intended wireless channel is above the upper limit or below the lower limit, disabling to change the current wireless channel to the intended wireless channel.

Claim 11 (Currently Amended ): The method for changing wireless channels as claimed in claim [[1]] 2, wherein said step c) includes the steps of:

when a lower limit of a required transmission capability is set, determining whether the transmission capability of the intended wireless channel is below the lower limit;

when it is determined that this is the case, establishing the wireless channel shared by some communications between the base station and each of the plurality of the mobile stations, while reserving the current wireless channel.

Claim 12 (Cancelled):

Claim 13 (Currently Amended ): ~~The~~ A mobile communication system ~~as claimed in claim 11~~ including a plurality of base stations and a mobile station communicating with the base station through a wireless channel, comprising:

an information amount measuring part that measures an amount of information, transferred between the base station and the mobile station;

a comparator part which compares the measured amount of information with first and second threshold values predetermined for a current wireless channel being used by the base and mobile stations;

a wireless channel changeover part which changes the current wireless channel to a wireless channel with a transmission capability higher than that of the current wireless channel when the measured amount of information is above the first threshold value and

changes the current wireless channel to a wireless channel with a transmission capability lower than that of the current wireless channel when the measured amount of information is below the second threshold value, wherein said information amount measuring part measures an amount of information yet to be transmitted is measured as said amount of information to be compared with the first threshold value, and

wherein said information amount measuring part measures an amount of information currently being transmitted as said amount of information to be compared with the second threshold value.

Claim 14 (Currently Amended): The mobile communication system as claimed in claim [[12]] 13, wherein said information amount measuring part is arranged to measure the amount of information yet to be transmitted.

Claim 15 (Currently Amended): The mobile communication system as claimed in claim [[12]] 13, wherein said information amount measuring part is arranged to measure the amount of information that has been transmitted during a predetermined time period.

Claim 16 (Currently Amended): The mobile communication system as claimed in claim[[12]] 13, wherein said wireless channel changeover part changes the current wireless channel to the wireless channel with the higher transmission capability than the current wireless channel only if the measured amount of information has been successively above the first threshold value over a predetermined count of times.

Claim 17 (Currently Amended): The mobile communication system as claimed in claim [[12]] 13, wherein said wireless channel changeover part changes the current wireless channel to the wireless channel with the lower transmission capability than the current wireless channel only if the measured information amount has been below the second threshold value successively over a predetermined count of times.

Claim 18 (Currently Amended): The mobile communication system as claimed in claim [[12]] 13, wherein said wireless channel changeover part changes the current wireless channel to the wireless channel with the higher transmission capability than the current wireless channel only if the measured amount of information has been successively above the first threshold value over a predetermined count of times, and

wherein said wireless channel changeover part changes the current wireless channel to the wireless channel with the lower transmission capability than the current wireless channel only if the measured information amount has been successively below the second threshold value over a further predetermined count of times.

Claim 19 (Currently Amended): The mobile communication system as claimed in claim[[12]] 13, further comprising:

an assignment ability estimating part that determines whether the wireless channel intended to be changed over can be assigned to the communication,

wherein when said assignment ability estimating part determines that this is not the case, said assignment ability estimating part determines again whether the intended wireless channel can be assigned to the communication, after a predetermined time period, and

wherein said wireless channel changeover part changes the current wireless channel to the intended wireless channel, when said assignment ability estimating part has determined that this is the case.

Claim 20 (Currently Amended): The mobile communication system as claimed in claim[[12]] 13, further comprising:

an assignment ability estimating part which determines whether the wireless channel intended to be changed over can be assigned to the communication, and

an assignment request entering part which enters an assignment request indicating changeover to the intended wireless channel, when said assignment ability estimating part determines that the intended wireless channel is not able to be assigned,

wherein said assignment ability estimating part determines again whether the intended wireless channel can be assigned to the communication in order of the entered assignment request, when said assignment ability estimating part determines that the intended wireless channel is not able to be assigned, and

wherein said wireless channel changeover part changes the current wireless channel to the intended wireless channel, when said assignment ability estimating part has determined that this is the case.

Claim 21 (Currently Amended): The mobile communication system as claimed in claim ~~[[12]]~~ 13, further comprising:

a transmission capability determining part that determines whether a transmission capability of the wireless channel intended to be changed over is either above an upper limit or below a lower limit for a required transmission capability,

wherein said wireless channel changeover part disables for changing the current wireless channel to the intended wireless channel, when it is determined that the transmission capability of the intended wireless channel is above the upper limit or below the lower limit.

Claim 22 (Currently Amended): The mobile communication system as claimed in claim ~~[[12]]~~ 13, further comprising:

a transmission capability determining part that determines whether a transmission capability of the wireless channel intended to be changed over is below a lower limit for a required transmission capability,

wherein said wireless channel changeover part establishes the wireless channel shared by some communications between the base station and each of the plurality of the mobile

stations while reserving the current wireless channel, when it is determined that the transmission capability of the intended wireless channel is below the lower limit.

Claim 23 (Currently Amended ): A base station in a mobile communication system including a plurality of base stations and a mobile station communicating with the base station through a wireless channel, comprising:

an information amount measuring part that measures an amount of information transferred between the base station and the mobile station;

a comparator part which compares the measured amount of information with first and second threshold values predetermined for a current wireless channel being used by the base and mobile stations;

a wireless channel changeover part which changes the current wireless channel to a wireless channel with a transmission capability higher than that of the current wireless channel when the measured amount of information is above the first threshold value and changes the current wireless channel to a wireless channel with a transmission capability lower than that of the current wireless channel when the measured amount of information is below the second threshold value wherein

said information amount measuring part measures an amount of information yet to be transmitted is measured as said amount of information to be compared with the first threshold value, and

said information amount measuring part measures an amount of information currently being transmitted as said amount of information to be compared with the second threshold value.



Claim 24 (Currently Amended): A mobile station communicating with a base station through a wireless channel in a mobile communication system including a plurality of base stations, comprising:

an information amount measuring part that measures an amount of information, transferred between the base station and the mobile station;

a comparator part which compares the measured amount of information with first and second threshold values predetermined for a current wireless channel being used by the base and mobile stations;

a wireless channel changeover part which changes the current wireless channel to a wireless channel with a transmission capability higher than that of the current wireless channel when the measured amount of information is above the first threshold value and changes the current wireless channel to a wireless channel with a transmission capability lower than that of the current wireless channel when the measured amount of information is below the second threshold value wherein

said information amount measuring part measures an amount of information yet to be transmitted is measured as said amount of information to be compared with the first threshold value, and

wherein said information amount measuring part measures an amount of information currently being transmitted as said amount of information to be compared with the second threshold value.